

LISTING OF THE CLAIMS

We claim:

1. (Currently amended) A stent comprising a tubular basic body open at its face surfaces, the circumferential wall of which is covered at least in places with a coating system comprising one or more polymer carriers and at least one pharmaceutically active substance, whereby the pharmaceutically active substance, after implantation of the stent into a human or animal body, is released into the surrounding tissue, wherein ~~one or more parameters of the coating system, selected from~~

[[-]] a concentration of the pharmaceutically active substance

~~_____ a morphological structure of the carrier(s)~~

~~_____~~

~~_____ a material modification of the carrier(s) and~~

~~_____~~

~~_____ a layer thickness of the carrier(s)~~

~~is/are predetermined~~ varies in the longitudinal direction of the stent so that the pharmaceutically active substance exhibits predetermined locally different elution characteristics in the longitudinal direction of the stent depending on the pathophysiological and/or rheological conditions to be expected of an application.

2. (Previously presented) The stent according to claim 1, wherein the polymer carrier is biodegradable.
3. (Previously presented) The stent according to claim 2, wherein a degradation behaviour of the carrier serves to differentiate the local elution characteristics.

4. (New) The stent according to claim 1, wherein the concentration of the pharmaceutically active substance is greater adjacent the face surfaces than in a middle portion of the stent.
5. (New) The stent according to claim 1, comprising a plurality of pharmaceutically active substances, wherein a concentration of a first pharmaceutically active substance is greater adjacent the face surfaces than in a middle portion of the stent, and wherein a concentration of a second pharmaceutically active substance is greater in a middle portion of the stent than adjacent the face surfaces.
6. (New) A stent comprising a tubular basic body open at its face surfaces, the circumferential wall of which is covered at least in places with a coating system comprising one or more polymer carriers and at least one pharmaceutically active substance, whereby the pharmaceutically active substance, after implantation of the stent into a human or animal body, is released into the surrounding tissue, wherein a morphological structure of the one or more polymer carriers varies in the longitudinal direction of the stent so that the pharmaceutically active substance exhibits predetermined locally different elution characteristics in the longitudinal direction of the stent depending on the pathophysiological and/or rheological conditions to be expected of an application.
7. (New) The stent according to claim 6, wherein the polymer carrier is biodegradable.
8. (New) The stent according to claim 7, wherein the morphological structure of the polymer carrier that varies in the longitudinal direction of the stent is porosity.
9. (New) A stent comprising a tubular basic body open at its face surfaces, the circumferential wall of which is covered at least in places with a coating system comprising one or more polymer carriers and at least one pharmaceutically active substance, whereby the pharmaceutically active substance, after implantation of the stent into a human or animal body, is released into the surrounding tissue, wherein a

material modification of the at least one carrier varies in the longitudinal direction of the stent so that the pharmaceutically active substance exhibits predetermined locally different elution characteristics in the longitudinal direction of the stent depending on the pathophysiological and/or rheological conditions to be expected of an application.

10. (New) The stent according to claim 9, wherein the polymer carrier is biodegradable.
11. (New) The stent according to claim 10, wherein the material modification of the at least one carrier that varies in the longitudinal direction of the stent is the presence of an additive which delays enzymatic breakdown of the polymer carrier.
12. (New) A stent comprising a tubular basic body open at its face surfaces, the circumferential wall of which is covered at least in places with a coating system comprising one or more polymer carriers and at least one pharmaceutically active substance, whereby the pharmaceutically active substance, after implantation of the stent into a human or animal body, is released into the surrounding tissue, wherein a layer thickness of the one or more polymer carriers varies in the longitudinal direction of the stent so that the pharmaceutically active substance exhibits predetermined locally different elution characteristics in the longitudinal direction of the stent depending on the pathophysiological and/or rheological conditions to be expected of an application.
13. (New) The stent according to claim 12, wherein the polymer carrier is biodegradable.
14. (New) The stent according to claim 12, wherein the concentration of the at least one pharmaceutically active substance is essentially consistent along the longitudinal direction of the stent and a degradation behavior of the carrier serves to differentiate the local elution characteristics.